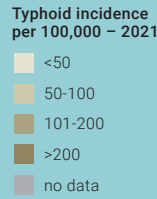


Burden of Typhoid in Mauritania

Mauritania is a typhoid-endemic country. The Global Burden of Disease 2021 study estimated that Mauritania experienced at least:

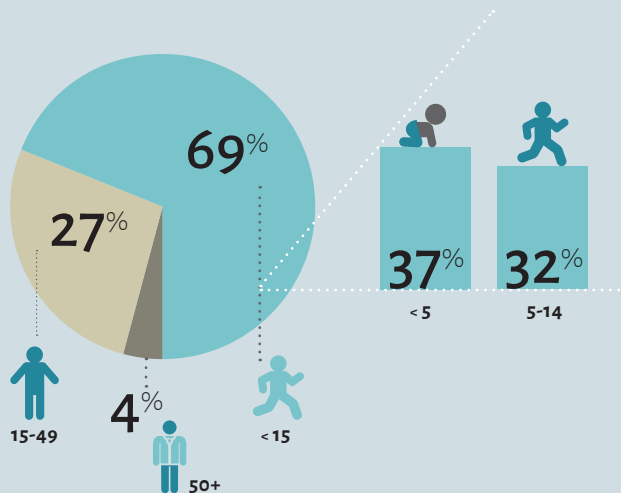
4,636 typhoid cases (105 cases per 100,000)
75 typhoid deaths
5,964 disability-adjusted **life-years lost** to typhoid¹

While typhoid is rarely fatal, the recovery is long and difficult. The disease steals time, money, and productivity from those infected and their families and is associated with numerous long-term complications.



Most typhoid cases in Mauritania occur in children younger than 15 years old.

TYPHOID CASES IN MAURITANIA BY AGE (2021)



Drug-resistant typhoid strains are a growing problem regionally and across the globe.



Global data show that multidrug-resistant (MDR) typhoid prevalence has **increased dramatically since 1992**.²



Drug-resistant typhoid has been isolated in Mauritania, and has also been found in other West African countries.³



Diseases such as typhoid can easily cross borders, and as drug-resistant typhoid becomes more common, **it has the potential to spread further in Mauritania**.



Drug-resistant typhoid is more difficult to treat and **forces the use of more expensive and less readily-available** treatment options.



In Mauritania, around **28% of the population does not have access to basic drinking water services**, and 50% lack access to basic sanitation services.⁴ This can increase the risk of typhoid in Mauritania.

Typhoid conjugate vaccines (TCVs) in Mauritania

The World Health Organization (WHO) recommends the introduction of prequalified TCVs be prioritized in countries with a high burden of typhoid disease or a high burden of drug-resistant typhoid. Support for introduction from Gavi, the Vaccine Alliance is available now. TCVs:



Are highly effective and safe for children as young as **6 months** of age;



Require a **single dose** to prevent 79-85% of typhoid cases in children;⁵



Offer strong protection for **at least 4 years**; and



Can be **co-administered** with measles-rubella vaccines.^{4,5}

Findings from an economic analysis predict that, even in the absence of a Gavi subsidy, a catch-up campaign with TCV could be cost-effective in Mauritania.⁶

Let's Take on Typhoid in Mauritania

- ✓ Typhoid is endemic in Mauritania, with more than **4,600** cases per year.
- ✓ Mauritania's burden of typhoid is most heavily borne by children **younger than 15** years of age.
- ✓ Data show that **drug-resistant typhoid** is present in Mauritania and is increasing regionally and globally.
- ✓ **TCVs** are safe, effective, and WHO-recommended for routine immunization as part of a cost-effective, integrated approach to typhoid prevention and control alongside safe water, sanitation, and hygiene interventions.
- ✓ **Gavi support** for TCV introduction is available **now**.

1. Institute for Health Metrics and Evaluation. Global Burden of Disease. 2021. Accessed via: ghdx.healthdata.org/gbd-results-tool.
2. Park SE, Pham DT, Boinett C, et al. The phylogeography and incidence of multi-drug resistant typhoid fever in sub-Saharan Africa. *Nature Communications*. 2018;9(1):509
3. Baltazar M, Ngandjio A, Holt K, et al. Multidrug-resistant *Salmonella enterica* serotype Typhi, Gulf of Guinea Region, Africa. *Emerging Infectious Diseases*. 2015;21(4):655-659.
4. Sustainable Development Report. Mauritania. 2020. Available at: <https://dashboards.sdgindex.org/profiles/mauritania/indicators>.
5. Patel PD, Patel P, Liang Y, et al. Safety and efficacy of a typhoid conjugate vaccine in Malawian children. *New England Journal of Medicine*. 2021;385(12):1104-1115.
6. Sirima SB, Ouedraogo A, Barry N, et al. Safety and immunogenicity of Vi-typhoid conjugate vaccine co-administration with routine 9-month vaccination in Burkina Faso: A randomized controlled phase 2 trial. *International Journal of Infectious Diseases*. 2021;108:465-472.
7. Bilcke J, Antillón M, Pieters Z, et al. Cost-effectiveness of routine and campaign use of typhoid Vi-conjugate vaccine in Gavi-eligible countries: A modelling study. *Lancet Infectious Disease*. 2019;19(7):728-739